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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,102	06/25/2004	Shigeru Ishizawa	255130US3PCT	2770
22850	7590	02/25/2009		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER MOORE, KARLA A	
			ART UNIT 1792	PAPER NUMBER
			NOTIFICATION DATE 02/25/2009	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

<i>Office Action Summary</i>	Application No.	Applicant(s)	
	10/500,102	ISHIZAWA ET AL.	
	Examiner	Art Unit	
	KARLA MOORE	1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2008.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9,11-13,19 and 24-30 is/are pending in the application.
- 4a) Of the above claim(s) 28 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-9,11-13 and 19 is/are allowed.
- 6) ☒ Claim(s) 24-27,29 and 30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1208</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claim 24 and 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,981,408 to Hughes et al. in view of Japanese Patent No. 6100164 to Kitsunai et al. and U.S. Patent No. 5,091,217 to Hey et al.

4. Hughes et al. disclose a transfer mechanism for transferring an object to be processed substantially as claimed and comprising: a common transfer chamber under a vacuum state (Figures 1-3 and 6-9, 30), wherein transfer ports (at interface between lift beam assembly, 60 in uppermost position and processing chambers, S_i; column 7,

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rows 23-30) are disposed in a longitudinal direction of the common transfer chamber; a guide rail (71) installed in the longitudinal direction of the common transfer chamber; a moving body (75) movable along the guide rail; an object holding member (multiple parts) including a holding part (81) for holding the object and a supporting part (43) for supporting the holding part; and mechanisms (62) for raising and lowering the object holding member wherein the raising and lowering mechanisms are installed apart from each other at positions corresponding to the transfer ports.

5. However, Hughes et al. fail to teach the common transfer chamber is divided into an upper space and a lower space by a partition wall which has a guide slit allowing horizontal movement of the supporting part.

6. Kitsunai et al. teach providing a partition between object carrying and driving portions of a transfer mechanism in a vacuum atmosphere/chamber thereby dividing the vacuum chamber into an upper space and a lower space for the purpose of isolating them from one another and increasing magnetic bonding power (abstract).

7. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided a partition between the object carrying and driving portions of the transfer mechanism in the vacuum atmosphere/chamber of Hughes et al. thereby dividing the vacuum chamber into an upper space and a lower space in order to isolate the upper space and lower space from one another and increase magnetic bonding power of the elevation supporting structure as taught by Kitsunai et al.

8. Kitsunai et al. and Hughes et al. disclose the mechanism substantially as claimed and as described above.

9. However, Kitsunai et al. and Hughes et al. fail to teach the guide slit allows a gas to flow from the upper space to the lower space therethrough.

10. Hey et al. teach the provision of a partition wall (Figure 3, 62) with guide slits (60) that allow for a gas to flow from an upper space of a chamber to a lower space of a chamber for the purpose of providing a substantial control of the flow path of the gas and for the purpose of providing parameters controlling the flow path which strongly discourage incidental and spurious flow within the chamber (column 7, row 52 through column 8, row 16).

11. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided a partition wall with guide slits in Kitsunai et al. and Hughes et al. in order to provide a substantial control of the flow path of a gas and in order to provide parameters controlling the flow path which strongly discourage incidental and spurious flow within the chamber as taught by Hey et al.

12. With respect to claim 29, in Hey et al. a gas supplying unit is provided in the upper space and a gas exhausting unit is installed in the lower space.

13. With respect to claim 30, Hey et al. further discloses providing a supporting part (58) through the guide slit.

14. Claim 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hughes and Kitsunai et al. and Hey et al. as applied to claim 24 and 29-30 above, and further in view of U.S. Patent No. 5,417,537 to Miller.

15. Hughes et al. and Kitsunai et al. and Hey et al. disclose the invention substantially as claimed and as described above.

16. However, Hughes et al. and Kitsunai et al. and Hey et al. fail to disclose many commonly known features of a transfer mechanism for disc-like objects/substrates.

17. Miller also discloses providing the following features in/associated with a transfer mechanism for the purpose of efficient transfer of objects in a sealed environment where particle generation is minimized (column 1, rows 62-65): a linear motor mechanism including armature coils installed in the longitudinal direction of a common transfer chamber, and a field magnet installed on the moving body; and a vacuum separation wall for airtightly separating the armature coils from the inside of the transfer chamber where the field magnet is installed. See Figures 1, 10 and 11. Also disclosed for efficient transfer are a magnetic levitation device for levitating the moving body from the guide rail (column 6, row 44 through column 7, row 4). See Figures 10 and 11.

18. It would have been obvious to one of ordinary skill in the art to have provided the transfer mechanism of Hughes et al. and Kitsunai et al. and Hey et al. the commonly known features of a transfer mechanism described above in order to provide for efficient transfer of objects in a sealed environment where particle generation is minimized as taught by Miller et al.

Allowable Subject Matter

19. Claims 1-9, 11-13 and 19 are allowed
20. The following is an examiner's statement of reasons for allowance: See previous office action.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

21. Applicant's arguments with respect to claims 24-30 have been considered but are moot in view of the new ground(s) of rejection. Hey et al. is relied upon for teaching the amended and newly added limitations as described above.

Conclusion

22. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KARLA MOORE whose telephone number is (571)272-1440. The examiner can normally be reached on Monday-Friday, 9:00 am-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 571.272.1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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/Karla Moore/
Primary Examiner, Art Unit 1792